

siders as almost a neglectable quantity the small and rather dubious endemic element in our British fauna. As regards the approximate derivation of that fauna, he appears to be generally in agreement with the conclusions suggested in some notes on the derivation of our British coleoptera which have appeared in this magazine (*Ent. Rec.*, viii., pp. 147 *et seq.*). He, however, discriminates between a north-western element derived from North America *viâ* Greenland and Iceland and a north-eastern derived from Scandinavia in the "Celtic" component of our fauna. These are certainly indistinguishable as far as our present evidence goes among the insects, although other groups discover traces of such dualism.

Dr. Scharff appears to merge the limited "southern" fauna which we possess in the very large "Germanic" component, that is to say, in the case of the coleoptera, such species as *Uetonia aurata* or *Geotrupes typhaeus*, which range across England into Ireland, with *Lucanus cervus* or *Geotrupes mutator*, species of a restricted south of England occurrence, and, although as regards their present distribution, the disparity is obvious, yet it would perhaps be difficult to explain that disparity by any theory of independent streams of migration. The Lusitanian element which includes in the coleoptera such species as *Exomias pyrenaicus* and *Otiorrhynchus auropunctatus*, Dr. Scharff considers as perhaps older than any other, and as having possibly persisted through the glacial epoch from late Tertiary times. In fact, this point—that of a refutation of the exaggerated importance attributed to the Ice Age as a destroyer of faunas, will strike the reader as perhaps the most salient and important feature in the book. To those of us who, imbued with ideas on the subject now perhaps a little antiquated, contemplated the total extinction of all life under vast glaciers and sheets of eternal snow, the suggestion that a large proportion of the fauna and flora of northern Europe may have persisted since the Pleiocene age may come as somewhat of a shock.

In the case of Britain, however, Dr. Scharff contends that such a persistence may be claimed for at any rate the "Celtic" and Lusitanian components of the present inhabitants.

For the rest, the book is copiously illustrated by photographs of many of the species to which allusion is made in the text and well executed maps of their European distribution, is well printed, and furnished with a good index and bibliography of the works of which the author has made use.

One might perhaps have wished a more applicable title. "European Animals" hardly suggests the inclusion of floras, and the book treats not of the animals themselves, but of their past proceedings and original homes. To students of one of the most fascinating and difficult of modern biological problems the book is heartily recommended.—W.E.S.

Gnathoncus nidicola, sp. nov., a coleopterous inhabitant of birds' nests (with plate).

By NORMAN H. JOY, M.R.C.S., F.E.S.

In all our catalogues of British beetles two members of the genus *Gnathoncus* are included, *viz.*, *nannetensis*, Mars. (*rotundatus*, Shp. Cat.), and *G. punctulatus*, Th. However, shortly after the publication of

Messrs. Beare and Donisthorpe's catalogue, the authors pointed out (*Ent. Rec.*, xvi., p. 290) that we do not possess *G. nannetensis*, Mars., as British, and *G. punctulatus*, Th., and *G. rotundatus*, Kug., are synonymous.

When examining my series of *Gnathoncus* last year, most of which I had taken in old birds' nests, I came to the conclusion that there were two distinct forms, one a shining diffusely punctured insect with large teeth to the front tibiæ, the other having very closely punctured and dull elytra, and small anterior tibial teeth. I then looked at the labels of each specimen and was somewhat surprised and much gratified to find that, without one exception, all the specimens of the first form were found in carcasses, and all those of the second in birds' nests, so that I had here a third specific distinction between the two forms. Mr. Donisthorpe has kindly supplied me with Mr. Lewis' lengthy synonymy of *G. rotundatus*, Kug., but I am afraid I have been able to make little of it. I should, however, have no doubt that the type *G. rotundatus* is the carrion-feeding species. Whether the other species has already been described I cannot ascertain for certain, but rather than leave the whole matter unpublished any longer I have thought it best to point out its specific characters, and give it a name, *G. nidicola*, which, however, can be easily sunk in favour of an older name if necessary. The following is a description of the species:

Black or pitch-black, extreme apex of elytra sometimes rufescent; head closely punctured, frontal stria wanting; antennæ reddish; thorax somewhat diffusely punctured, more thickly at sides; elytra with stria as in *G. rotundatus*, Kug., diffusely punctured at base, very thickly punctured towards apex, the punctures running together into rows in the apical third, so that this part appears dull and very finely striated longitudinally; anterior tibiæ distinctly dilated, with nine to ten small teeth, the spaces between them very slightly convex, or flat; the apical tooth and the next towards the base are separated by a distinctly longer interval than the others; intermediate tibiæ slightly dilated.

In *G. rotundatus* the front tibiæ are distinctly narrower than in *G. nidicola*, and possess large teeth with well-marked, strongly concave, intervals, very different from the small teeth and flat intervals of the above species. The intermediate tibiæ are less dilated and have conspicuously longer teeth. *G. rotundatus* has the apex of the elytra shining and diffusely punctured. It also seems to be more variable in size, at least, I have not seen any specimens of *G. nidicola* nearly as small as the smallest *G. rotundatus*. The following table will serve to distinguish the two species:

Anterior tibiæ narrower, with large teeth and convex intervals; apex of elytra shining, diffusely punctured; habitat, carrion.	<i>G. rotundatus</i> .
Anterior tibiæ broader, with small teeth and almost flat intervals; apex of elytra dull, closely punctured; habitat, birds' nests.	<i>G. nidicola</i> .

I have examined quite fifty specimens of both species and have not come across one that has one of the two structural characters without the other, indeed, I have seldom hesitated a moment before deciding to which species any individual specimen belongs.

With regard to the difference of habitat being a distinction of importance, this is most strikingly illustrated in the specimens I took last year. Out of about thirty specimens of *Gnathoncus*, only two are *G. rotundatus*, one of which was taken in carrion, the other in rotting vegetable matter, whereas all the rest were taken in birds' nests. I am quite aware there are many "collectors" who do not regard this last

distinction of any worth. I can only remind them that beetles are *living* creatures, and must be studied as such, and that it is both unscientific and unprofitable to study them only as one would stamps, coins, or old china.

Mr. W. E. Sharp raises the question (*Ent. Rec.*, xviii., p. 319), whether a difference in habitat necessarily means a difference in habits. In a case like this I certainly think it does. The habitats of both these species are very perishable, and, therefore, the beetles would often want to move from old quarters to search for new ones. It is in this *search* for new quarters that the essential difference in habits comes in, a difference which, as I have pointed out before, must mean an actual structural difference in the central nervous system. Imagine, for instance, an individual of *G. nidicola* just hatched from an old deserted starlings' nest. The nest is no longer fit for its home, so it sets off in search of another. In the course of its flight it may very likely pass close by dead and putrid carcasses in which there are probably specimens of *G. rotundatus* feeding and mating, yet these do not attract it. Helped by some sense, of which we have no conception, it eventually arrives at a small obscure hole in an old tree, where it at once finds the object of its search, the starlings' nest therein. This is no mere fanciful picture. It is the only way we can account for the fact that we do not find *G. nidicola* in carrion nor *G. rotundatus* in birds' nests. But to return to the structural differences between the two species. I have shown specimens to several distinguished coleopterists and they have, with one exception only, agreed with me that *G. nidicola* is an abundantly distinct species. As this one exception happens to be Mr. Lewis, the authority on the *Histeridae*, I feel I must answer his criticisms. Some months ago he kindly examined some specimens of both species I sent him, but seems to have been at once prejudiced against the two forms being distinct by finding that the sterna were of the same shape. After this apparently nothing else could be of any importance. Having examined more specimens of both species and discovered the difference in habitat, I felt so convinced that they must be distinct, that I sent them again to Mr. Lewis, pointing out carefully the specific characters. I was surprised to hear from him that he was unable to appreciate that there were two forms of punctuation of the elytra, simply stating that the punctuation often varied in the *Histeridae*. He also suggested that some of the specimens had somewhat worn front tibiae. I am quite ready to agree with him on this point, as some of the specimens of *G. rotundatus* had worn teeth, probably from scratching in the hard earth under carcasses, etc., but these blunt broad teeth are very different from the small sharp teeth of *G. nidicola*, for I need hardly point out to Mr. Lewis that the teeth are worn *blunt*, not *sharp*!

Since writing the above, Mr. Champion has kindly sent me his series of *G. rotundatus*. There were twenty-six specimens, of which seven had the anterior tibiae so much tucked in under them that I was unable to examine them. The remainder I examined in the following way: Having placed them in a row I looked at the apex of the elytra only in each specimen, and thus divided them into the two species. I then examined the front tibiae to confirm this identification. I found one specimen only which I had regarded (but with some doubt) as belonging to *H. nidicola*, which obviously had the front tibiae of *H.*

rotundatus. In this series of nineteen specimens only one had at all intermediate punctuation, so that there was no question of the punctuation varying. I now mixed up the specimens again, and, by examining the front tibiæ only, I, with ease, picked out the same nine specimens of *H. nidicola* as I had done before. On looking at the labels of these specimens, I found three were from the Island of Sheppey (probably taken by Commander Walker in an old owls' nest), and the remainder were labelled "ex coll. Harding." The specimens of *G. rotundatus* were from various localities, but none from the Island of Sheppey or from Harding's collection, so that this bears out my statement that these two forms are not taken in company.

Cis dentatus, Mellié, a species of Coleoptera new to Britain.

By H. ST. J. K. DONISTHORPE, F.Z.S., F.E.S.

Nigro-piceus, convexus oblongus pubescens. Prothorax æqualis, in maris antice protensus et bidentatus, angulis anticis subacutis, posticis rotundatis. Elytra creberrime et subtiliter punctata (*Ann. de la Soc. Ent. de France*, 1848, p. 324).

The introduction of this species to our list is due to my friend, Mr. R. S. Mitford, who took a ♀ specimen, last July, at Sandown, Isle of Wight, by beating he thinks. Mr. E. A. Waterhouse, in looking over his (Mr. Mitford's) Isle of Wight captures, came across this specimen, which was unknown to him, and suggested it should be referred to me. I soon found it was nothing in our list, and eventually I ran it down in Acloque as *C. dentatus*, Mell., and, on looking up the original description, I found it agreed well with the insect. Mr. Mitford then obtained specimens from abroad, which confirm my identification.

It comes next to *C. bidentatus* in the section that has the body oblong, the anterior angles of the thorax advancing towards the eyes, and the elytra pubescent. From *C. bidentatus* it may be known by the fact that the thorax is contracted towards the front, and the punctuation is much closer and finer, whereas, in the former, the thorax is nearly as broad at apex as at base, and the punctuation is coarser, and much more widely separated. *C. dentatus* bears a superficial resemblance to *C. alni*, but the latter is much more shiny, besides having the anterior angles of the thorax rounded, and not advancing towards the eyes. The known distribution of this species appears to be the Alps, France, and Switzerland.

COLEOPTERA.

COLEOPTERA IN THE EALING DISTRICT.—In working burrows of *Cossus* during January of this year, I had the good fortune to secure one specimen of the somewhat rare Staphylinid, *Quedius ventralis*, Ar. The specimen is a very handsome one, owing to the abnormal coloration of the elytra. The latter have their lateral margins broadly ferruginous in colour (of a similar tint to the hind-body), the sutural region being darker. The tree from which the specimen was taken was a poplar, situated close to Ealing Common station. *Hylesinus vittatus*, F., I took in numbers out of a dead elm stump, in Perivale Park, during early January, in company with its larva.—H. C. DOLLMAN, F.E.S., Bedford Park. May 14th, 1907.